



# Cisco Integrated Services Routers

## Empowering the Branch Office and the Business



### Expanded Features and Scalability

Feature	850	870	1800 (Fixed)	1841 (Modular)	1861 (Modular)	2801	2811	2821	2851	3825	3845
<b>Form Factor</b>	Desktop	Desktop	Desktop	Desktop	Desktop	1 RU	1 RU	2 RU	2 RU	2 RU	3 RU
<b>Integrated Routed/WAN Ethernet</b>	1 10/100 WAN (851)	1 10/100 WAN (871)	1 10/100 (1801-1803) 2 10/100 (1811, 1812)	2 10/100	1 10/100	2 10/100	2 10/100	2 10/100/1000	2 10/100/1000	2 10/100/1000	2 10/100/1000
<b>10/100 Ethernet Switch Ports</b>	4	4	8	Up to 4	Up to 9	Up to 16	Up to 32	Up to 40	Up to 64	Up to 88	Up to 112
<b>Broadband WAN Support</b>	ADSL Annex A (857)	ADSL Annex B and ADSL over ISDN (876), ADSL Annex A and ADSL over POTS (877), and G.SHDSL (878)	ADSL Annex A and ADSL over POTS (1801), ADSL Annex B (1802), G.SHDSL (1803), and cable	ADSL and G.SHDSL WICs (optional), and DOCSIS 2.0 WICs (optional)	Optional ADSL and G.SHDSL HWICs, DOCSIS 2.0 HWICs, and 3G HWIC	Optional ADSL and G.SHDSL HWICs, DOCSIS 2.0 HWICs, and 3G HWIC	Optional ADSL and G.SHDSL HWICs, DOCSIS 2.0 HWICs, and 3G HWIC	Optional ADSL and G.SHDSL HWICs, DOCSIS 2.0 HWICs, and 3G HWIC	Optional ADSL and G.SHDSL HWICs, DOCSIS 2.0 HWICs, and 3G HWIC	Optional ADSL and G.SHDSL HWICs, DOCSIS 2.0 HWICs, and 3G HWIC	Optional ADSL and G.SHDSL HWICs, DOCSIS 2.0 HWICs, and 3G HWIC
<b>ISDN Ports</b>	—	1 BRI (876), 1 BRI (878 Out of Band Management only)	1 BRI (1801, 1802, 1803, 1812)	BRI WIC (optional)	BRI (data) through HWIC-ADSL-B/ST; BRI (voice) through factory option	BRI WIC (optional)	BRI or PRI (optional)	BRI or PRI (optional)	BRI or PRI (optional)	BRI or PRI (optional)	BRI or PRI (optional)
<b>Analog Modem Ports</b>	—	—	1 (1811)	WIC (optional)	—	WIC (optional)	WIC or Network Module (optional)	WIC or Network Module (optional)	WIC or Network Module (optional)	WIC or Network Module (optional)	WIC or Network Module (optional)
<b>Interface Card Slots</b>	—	—	—	2 HWIC/VVIC/VVIC (data only)	1 HWIC (data only)	2 HWIC/WIC/VIC/VVIC 1 WIC/VIC/VVIC 1 VIC/VVIC	4 HWIC/WIC/VIC/VVIC	4 HWIC/WIC/VIC/VVIC	4 HWIC/WIC/VIC/VVIC	4 HWIC/WIC/VIC/VVIC	4 HWIC/WIC/VIC/VVIC
<b>Network Module Slots</b>	—	—	—	—	—	—	1	1	1	2 (HIMI available)	4 (HIMI available)
<b>Extension Voice Module (EVM) Slot</b>	—	—	—	—	—	—	—	1	1	—	—
<b>AIM Slots</b>	—	—	—	1	—	2	2	2	2	2	2
<b>USB Ports</b>	—	2 (v2.0) (871)	2 (v2.0) (1811 and 1812 only)	1 (v1.1)	—	1 (v1.1)	2 (v1.1)	2 (v1.1)	2 (v1.1)	2 (v1.1)	2 (v1.1)
<b>Embedded Crypto Processor</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Default/Max Flash</b>	20 MB	24/52 MB	32/128 MB	32/128 MB	128/128 MB	64/256 MB	64/256 MB	64/256 MB	64/256 MB	64/512 MB	64/512 MB
<b>Default/Max SDRAM</b>	64 MB	128/256 MB	128/384 MB	128/384 MB	256/256 MB	128/384 MB	256/768 MB	256/1024 MB	256/1024 MB	256/1024 MB	256/1024 MB
<b>Gigabit Ethernet, SFP Port</b>	—	—	—	—	—	—	Optional (HWIC)	Optional (HWIC)	Optional (HWIC)	1	1
<b>Cisco Router and Security Device Manager (SDM)</b>	Yes	Yes	Yes	Yes	None	Yes	Yes	Yes	Yes	Yes	Yes
<b>Routing and Multicast</b>											
<b>IPv4 Routing Protocols</b>	RIP v1/v2	RIP v1/v2. Requires Advanced IP Services and up Cisco IOS Image for EIGRP, OSPF, BGP	RIP v1/v2, EIGRP, OSPF, BGP, PBR, and PIR	RIP v1/v2, EIGRP, OSPF, BGP, PBR, and PIR	RIP v1/v2, EIGRP, OSPF, BGP, PBR, and PIR	RIP v1/v2, EIGRP, OSPF, BGP, PBR, and PIR	RIP v1/v2, EIGRP, OSPF, BGP, PBR, and PIR	RIP v1/v2, EIGRP, OSPF, BGP, PBR, and PIR	RIP v1/v2, EIGRP, OSPF, BGP, PBR, and PIR	RIP v1/v2, EIGRP, OSPF, BGP, PBR, and PIR	RIP v1/v2, EIGRP, OSPF, BGP, PBR, and PIR
<b>Multicast Routing Protocols</b>	—	PIM-SM, mroute (static route), and MLD	PIM-SM, mroute (static route), and MLD	PIM-SM, mroute (static route), and MLD	PIM-SM, mroute (static route), and MLD	PIM-SM, mroute (static route), and MLD	PIM-SM, mroute (static route), and MLD	PIM-SM, mroute (static route), and MLD	PIM-SM, mroute (static route), and MLD	PIM-SM, mroute (static route), and MLD	PIM-SM, mroute (static route), and MLD
<b>IPv6 Routing Protocols</b>	—	EIGRP, RIPng, OSPFv3, IS-IS, and PBR	EIGRP, RIPng, OSPFv3, IS-IS, and PBR	EIGRP, RIPng, OSPFv3, IS-IS, and PBR	EIGRP, RIPng, OSPFv3, IS-IS, and PBR	EIGRP, RIPng, OSPFv3, IS-IS, and PBR	EIGRP, RIPng, OSPFv3, IS-IS, and PBR	EIGRP, RIPng, OSPFv3, IS-IS, and PBR	EIGRP, RIPng, OSPFv3, IS-IS, and PBR	EIGRP, RIPng, OSPFv3, IS-IS, and PBR	EIGRP, RIPng, OSPFv3, IS-IS, and PBR
<b>Advanced Security</b>											
<b>IPSec and SSL VPN</b>	IPSec only	Yes	Yes	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image
<b>VPN Technologies</b>	Site-to-site IPSec VPN	DM-VPN, GET VPN, V3PN, with GRE, Easy VPN, and Cisco IOS SSL VPN (Advanced IP Services and up Cisco IOS Image required for DM-VPN and GET VPN)	DM-VPN, GET VPN, V3PN, with GRE, Easy VPN, and Cisco IOS SSL VPN	DM-VPN, GET VPN, V3PN, with GRE, Easy VPN, and Cisco IOS SSL VPN	DM-VPN, GET VPN, V3PN, with GRE, Easy VPN, and Cisco IOS SSL VPN	DM-VPN, GET VPN, V3PN, with GRE, Easy VPN, and Cisco IOS SSL VPN	DM-VPN, GET VPN, V3PN, with GRE, Easy VPN, and Cisco IOS SSL VPN	DM-VPN, GET VPN, V3PN, with GRE, Easy VPN, and Cisco IOS SSL VPN	DM-VPN, GET VPN, V3PN, with GRE, Easy VPN, and Cisco IOS SSL VPN	DM-VPN, GET VPN, V3PN, with GRE, Easy VPN, and Cisco IOS SSL VPN	DM-VPN, GET VPN, V3PN, with GRE, Easy VPN, and Cisco IOS SSL VPN
<b>Stateful Firewall</b>	Yes	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image
<b>IOS Inline Prevention System (IPS)</b>	—	Yes, requires Advanced IP Services and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image	Yes, requires Advanced Security and up Cisco IOS Image
<b>URL Filtering</b>	—	Yes, requires Advanced IP Services and up Cisco IOS Image	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Security Modules</b>	—	—	—	IPS AIM accelerates inline IPS	—	IPS AIM accelerates inline IPS	IPS AIM accelerates inline IPS; NAC Appliance Module enforces security policy compliance	IPS AIM accelerates inline IPS; NAC Appliance Module enforces security policy compliance	IPS AIM accelerates inline IPS; NAC Appliance Module enforces security policy compliance	IPS AIM accelerates inline IPS; NAC Appliance Module enforces security policy compliance	IPS AIM accelerates inline IPS; NAC Appliance Module enforces security policy compliance
<b>Voice Support</b>											
<b>DSP (PVDM) Slots on Motherboard</b>	—	—	—	—	1 (fixed)	2	2	3	3	4	4
<b>Survivable Remote Site Telephony (SRST)</b>	—	—	—	—	Yes, up to 8 users	Yes, up to 24 users	Yes, up to 36 users	Yes, up to 48 users	Yes, up to 96 users	Yes, up to 336 users	Yes, up to 720 users
<b>Cisco Unified Communications Manager Express</b>	—	—	—	—	Yes, up to 8 users	Yes, up to 24 users	Yes, up to 36 users	Yes, up to 48 users	Yes, up to 96 users	Yes, up to 168 users	Yes, up to 240 users
<b>Cisco Unity Express</b>	—	—	—	—	Yes, up to 8 mailboxes	Yes, up to 50 mailboxes	Yes, up to 250 mailboxes	Yes, up to 250 mailboxes	Yes, up to 250 mailboxes	Yes, up to 250 mailboxes	Yes, up to 250 mailboxes
<b>Unified Messaging Gateway</b>	—	—	—	—	—	—	Yes	Yes	Yes	Yes	Yes
<b>Digital Voice</b>	—	—	—	—	—	Yes, up to 30 calls	Yes, up to 80 calls	Yes, up to 128 calls	Yes, up to 192 calls	Yes, up to 480 calls	Yes, up to 480 calls
<b>Analog Voice</b>	—	—	—	—	Yes, up to 4 FXS, 4 FXO	Yes, up to 16 FXS, 16 FXO ports	Yes, up to 28 FXS, 24 FXO ports	Yes, up to 52 FXS, 36 FXO ports	Yes, up to 52 FXS, 36 FXO ports	Yes, up to 52 FXS, 36 FXO ports	Yes, up to 52 FXS, 36 FXO ports
<b>Local Conferencing and Transcoding</b>	—	—	—	—	Yes, use PVDMs	Yes, use PVDMs	Yes, use PVDMs	Yes, use PVDMs	Yes, use PVDMs	Yes, use PVDMs	Yes, use PVDMs
<b>Wireless LAN</b>											
<b>Integrated 802.11 b/g Access Point</b>	Yes 850W	Yes 870W	Yes 1800W	HWIC (optional)	—	HWIC (optional)	HWIC (optional)	HWIC (optional)	HWIC (optional)	HWIC (optional)	HWIC (optional)
<b>Integrated 802.11 a/b/g Access Point</b>	—	—	Yes 1800W	HWIC (optional)	—	HWIC (optional)	HWIC (optional)	HWIC (optional)	HWIC (optional)	HWIC (optional)	HWIC (optional)
<b>RP-TNC Connectors for Field-replaceable Optional High-gain Antennas</b>	—	Yes	Yes	Yes	—	Yes	Yes	Yes	Yes	Yes	Yes
<b>Diversity (Dual) Antennas</b>	—	Yes	Yes	Yes	—	Yes	Yes	Yes	Yes	Yes	Yes
<b>Wireless LAN Controller Module</b>	—	—	—	—	—	—	6, 8, 12 802.11a/b/g/n AP controller	6, 8, 12 802.11a/b/g/n AP controller	6, 8, 12 802.11a/b/g/n AP controller	6, 8, 12 802.11a/b/g/n AP controller	6, 8, 12 802.11a/b/g/n AP controller
<b>Wireless WAN</b>											
<b>3G Cellular</b>	—	—	—	HWIC (optional)	HWIC (optional)	HWIC (optional)	HWIC (optional)	HWIC (optional)	HWIC (optional)	HWIC (optional)	HWIC (optional)
<b>Satellite</b>	—	—	—	—	—	—	Network Module (optional)	Network Module (optional)	Network Module (optional)	Network Module (optional)	Network Module (optional)
<b>Integrated Switching</b>											
<b>PoE Support and Wattage Required</b>	No	Yes (external adapter), 80W	Yes, 80W	No	Yes (8 of 9 ports), 80W	Yes, 120W	Yes, 160W	Yes, 240W	Yes, 360W	Yes, 360W	Yes, 360W
<b>Switching Network Module</b>	—	—	—	—	—	—	1 NM or NM-E	1 NM, NME, or NME-X	1 NM, NME, NME-X, NMD, or NME-XD	1 NM, NME, or NME-X and 1 NM, NME-X, NMD, or NME-XD	4 NM, NME, or NME-X or 2 NMD or NME-XD
<b>Application Services</b>											
<b>Application Acceleration/WAN Optimization</b>	—	—	—	—	—	—	WAAS Module	WAAS Module	WAAS Module	WAAS Module	WAAS Module
<b>Application Oriented Networking (AON)</b>	—	—	—	—	—	—	AON Module	AON Module	AON Module	AON Module	AON Module
<b>Digital Media Delivery</b>	—	—	—	—	—	—	ACNS Network Module	ACNS Network Module	ACNS Network Module	ACNS Network Module	ACNS Network Module
<b>Network Performance Analysis</b>	—	—	—	—	—	—	Network Analysis Module	Network Analysis Module	Network Analysis Module	Network Analysis Module	Network Analysis Module

#### Cisco 800 Series

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Voice, more users, increased performance, WAN options, backup WAN

#### Cisco 1800 Series

Secure wired and wireless broadband data and voice, with T1/E1 connectivity for small sites



Additional services, greater flexibility and performance

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Secure wired and wireless data, voice, and video, with T1/E1 connectivity for small- to medium-size sites



Most service, greatest capacity, availability, performance

#### Cisco 3800 Series

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